

Case 2802

Anisolepis grilli Boulenger, 1891 (Reptilia, Squamata): proposed conservation of the specific name

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Abstract. Two species of the lizard genus *Anisolepis* Boulenger, 1885 (family POLYCHRIDAE) occur in southeastern Brazil, Uruguay and northern Argentina. In this century they have been referred to as *A. undulatus* (Wiegmann, 1834) and *A. grilli* Boulenger, 1891. The purpose of this application is to conserve the specific name *grilli* for the species which occurs in Brazil and Misiones Provinces, Argentina. The name is threatened by two senior subjective synonyms, *Laemanctus fitzingeri* and *L. obtusirostris*, both of Wiegmann (1834).

1. Wiegmann (1834, p. 45) described the genus *Laemanctus* and included four new nominal species. Brief descriptions were provided (p. 46) for three Brazilian species, *fitzingeri*, *obtusirostris* and *undulatus*, and a lengthy description for a Mexican species, *longipes*. Duméril & Bibron (1837, pp. 72–76) repeated the descriptions of *fitzingeri*, *obtusirostris* and *undulatus*. Fitzinger (1843, p. 16) designated *longipes* as the type species of *Laemanctus*.

2. Wiegmann's nominal species *fitzingeri*, *obtusirostris* and *undulatus* have been placed in a number of genera: by Fitzinger (1843, p. 62) in *Urostrophus* Duméril & Bibron, 1837 (type species *U. vautieri* Duméril & Bibron, 1837); by Gray (1845, pp. 184–185) in *Ecphymotes* Fitzinger, 1826 (type species *Polychrus acutirostris* Spix, 1825); and by Boulenger (1885b, p. 121) in *Enyalius* Wagler, 1830 (type species *Agama catenata* Wied-Neuwied, 1821). Gray (1845) based his descriptions of the three species entirely on those of Wiegmann (1834); his work is the last in which the name *obtusirostris* was used as valid. Boulenger (1885b) included the latter as a synonym of *undulatus*.

3. Boulenger (1885a, p. 85) established the new genus *Anisolepis* with the single species *iheringii*, based on two female specimens in the Natural History Museum, London (catalogue nos. 1946.8.5.90–91, formerly 85.6.26.4–5). *A. iheringii* is therefore the type species of the genus by monotypy. Later that year Boulenger (1885b, p. 122, pl. 9, fig. 3) repeated the description and figured *A. iheringii*. In the 'Addenda and Corrigenda' (1887, pp. 500–501) the species *undulatus* was transferred to *Anisolepis* and *iheringii* was placed in its synonymy; *undulatus* has since been treated as the valid name of the type species of *Anisolepis*. In 1891 (p. 909) Boulenger described *A. grilli* from

Palmeira, Brazil. Peters & Donoso-Barros (1970, p. 42) subsequently synonymized the nominal species *A. lionotus* Werner, 1897 (p. 470) from Blumenau, Brazil, with *grilli*. Both *undulatus* Wiegmann, 1834 and *grilli* Boulenger, 1891 are regarded as the valid names for the Brazilian species of *Anisolepis* and are not considered to be synonymous with the names of the type species of any of the genera mentioned in para. 2 above.

4. One of us (Etheridge, 1969, p. 239) briefly examined the holotypes of *Laemanctus fitzingeri*, *obtusirostris* and *undulatus* in the Museum für Naturkunde der Humboldt-Universität, Berlin (catalogue nos. 495, 496 and 497 respectively), and considered them to be one species, currently known as *Anisolepis undulatus*. Etheridge also pointed out that it was clear from Boulenger's (1885b, p. 121) characterization of *Enyalius fitzingeri*, as well as from an examination of his specimens, that the species known as *fitzingeri* since Boulenger's work is actually *Enyalius bilineatus* Duméril & Bibron, 1837 (see, for example, Burt & Burt, 1933, p. 23 and Amaral, 1937, pp. 176, iv, in which the name *fitzingeri* has been misused in the sense of *bilineatus*). We have both (Etheridge & Williams, 1991, p. 332) since re-examined the holotypes of *fitzingeri*, *obtusirostris* and *undulatus* and compared them with one of the two syntypes of *Anisolepis grilli* (catalogue no. 1946.8.5.58 (formerly 91.9.24.10) in the Natural History Museum, London; the second syntype, no. 1946.8.12.38 (formerly 91.11.19.27) is a skeletal preparation). We found that, contrary to Etheridge (1969), the types of *fitzingeri* and *obtusirostris* are conspecific with *grilli*, and not with *undulatus*. We published descriptions of the two Brazilian species of *Anisolepis*, together with a diagnostic key (1991, p. 351).

5. The name *Anisolepis grilli* Boulenger, 1891 has been widely cited in works on genetics, biology and ecology, as well as taxonomy, and has appeared in the following representative list of recent publications: Gorman, Atkins & Holzinger, 1967, pp. 283, 209 and Gorman, 1973, p. 373 (chromosome number); Maderson, 1970, p. 197 (digital scale structure); Peters & Donoso-Barros, 1970, p. 42 (synonymy; distribution and key); Soma, Beçak & Beçak, 1974a, p. 227 (karyotype and DNA content); Soma, Beçak & Beçak, 1974b, p. 1325 (DNA content); Gallardo, 1977, p. 125 (behavior and comparison with *undulatus*); Rand, 1982, pp. 173–174 (body size and egg clutch size); Vanzolini, 1983, p. 127 (sympatry with *Polychrus acutirostris*); Olmo, 1984, p. 22 (genome size); Etheridge & de Queiroz, 1988, p. 305 (digital lamellar scales); Etheridge & Williams, 1991 (morphology, taxonomy, distribution and relationships). The name *obtusirostris* Wiegmann, 1834 has not been used for more than 150 years (see para. 2 above), and *fitzingeri* Wiegmann, 1834 has been misused for another species (see para. 4 above). To resurrect either of these names for the taxon currently called *grilli* would cause confusion and seriously threaten nomenclatural stability. We have previously recorded our intention to apply to the Commission for the suppression of the names *fitzingeri* and *obtusirostris* (Etheridge & Williams, 1991, p. 332, footnote).

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to suppress the following specific names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *fitzingeri* Wiegmann, 1834, as published in the binomen *Laemanctus fitzingeri*;
 - (b) *obtusirostris* Wiegmann, 1834, as published in the binomen *Laemanctus obtusirostris*;

- (2) to place on the Official List of Specific Names in Zoology the name *grilli* Boulenger, 1891, as published in the binomen *Anisolepis grilli*;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
 - (a) *fitzingeri* Wiegmann, 1834, as published in the binomen *Laemanctus fitzingeri* and as suppressed in (1)(a) above;
 - (b) *obtusirostris* Wiegmann, 1834, as published in the binomen *Laemanctus obtusirostris* and as suppressed in (1)(b) above.

References

- Amaral, A. do. 1937. Estudos sobre lacertilios neotropicos. 4. Liste remissiva dos lacertilios do Brasil. *Memorias do Instituto Butantan*, **11**: 167–204, i–ix.
- Boulenger, G.A. 1885a. Second list of reptiles and batrachians from the Province Rio Grande do Sul, Brazil, sent to the Natural-History Museum by Dr. H. von Ihering. *Annals and Magazine of Natural History*, (5)**16**(92): 85–88.
- Boulenger, G.A. 1885b, 1887. *Catalogue of the lizards in the British Museum (Natural History)*, Ed. 2. Vol. 2, xiii, 497 pp., 24 pls. (1885b); vol. 3, xii, 575 pp., 40 pls. (1887). British Museum, London.
- Boulenger, G.A. 1891. Description of a new iguanoid lizard of the genus *Anisolepis*. *Annali del Museo Civico di Storia Naturale di Genova*, (2)**10**: 909.
- Burt, C.E. & Burt, M.D. 1933. A preliminary check list of the lizards of South America. *Transactions of the Academy of St. Louis*, **28**(1, 2): 1–104, i–iv.
- Duméril, A.M.C. & Bibron, G. 1837. *Erpétologie générale ou histoire naturelle complète des reptiles*, vol. 4. ii, 577 pp. Librairie Encyclopédique de Roret, Paris.
- Etheridge, R.E. 1969. A review of the iguanoid lizard genus *Enyalius*. *Bulletin of the British Museum (Natural History)*, Zoology, **18**(8): 231–260.
- Etheridge, R.E. & de Queiroz, K. 1988. A phylogeny of Iguanidae. Pp. 283–368 in Estes, R. & Pregill, G. (Eds.), *Phylogenetic relationships of the lizard families: essays commemorating Charles L. Camp*. xii, 631 pp. Stanford University Press, Stanford.
- Etheridge, R.E. & Williams, E.E. 1991. A review of the South American lizard genera *Urostrophus* and *Anisolepis* (Squamata: Iguania: Polychridae). *Bulletin of the Museum of Comparative Zoology, Harvard University, Cambridge, Mass.*, **152**(5): 317–361.
- Fitzinger, L. 1826. *Neue Classification der Reptilien nach ihren natürlichen Verwandtschaften nebst einer Verwandtschafts-Tafel und einem Verzeichnisse der Reptilien-Sammlung des k.k. zoologischen Museums zu Wien*. 66 pp. Heubner, Wien.
- Fitzinger, L. 1843. *Systema Reptilium*. Fasciculus primus (Amblyglossae). 106, vi pp. Braumüller & Seidel, Wien.
- Gallardo, J.M. 1977. *Reptiles de los alrededores de Buenos Aires*. 213 pp. Editorial Universitaria de Buenos Aires, Buenos Aires.
- Gorman, G.C. 1973. The chromosomes of the Reptilia: a cytogenetic interpretation. Pp. 394–424 in Chiarelli, A.B. & Cappanna, E. (Eds.), *Cytotaxonomy and vertebrate evolution*. xv, 783 pp. Academic Press, London.
- Gorman, G.C., Atkins, L. & Holzinger, T. 1967. New karyotypic data on 15 genera of lizards in the family Iguanidae, with a discussion of taxonomic and cytological implications. *Cytogenetics*, **6**: 286–299.
- Gray, J.E. 1845. *Catalogue of the specimens of lizards in the collection of the British Museum*. xxviii, 289 pp. Newman, London.
- Maderson, P.F.A. 1970. Lizard glands and lizard hands: models for evolutionary study. *Forma et Functio*, **3**: 179–204.
- Olmo, E. 1984. Genomic composition of reptiles: evolutionary perspectives. *Journal of Herpetology*, **18**(1): 20–32.
- Peters, J.A. & Donoso-Barros, R. 1970. Catalogue of the Neotropical Squamata. Part 2 (lizards and amphisbaenians). *Bulletin of the United States National Museum*, **297**: 1–293.

- Rand, A.S. 1982. Clutch and egg size in Brazilian iguanid lizards. *Herpetologica*, **38**(1): 171–178.
- Soma, M.L., Beçak, M.L. & Beçak, W. 1974a. Variabilidade cariotípica e conteúdo de DNA em lacertílios (Abstract). *Ciência e Cultura*, São Paulo, **26**(supplement): 227–228.
- Soma, M.L., Beçak, M.L. & Beçak, W. 1974b. Estudo comparativo de conteúdo de DNA em 12 espécies de lacertílios. *Ciência e Cultura*, São Paulo, **27**(12): 1324–1327.
- Spix, J.B. 1825. *Animalia nova sive species novae lacertarum, quas in itinere per Brasiliam annis MDCCCXVII–MDCCCXX jussu et auspiciis Maximiliani Josephi I Bavariae Regis suscepto collegit et descripsit Dr. J.B. Spix*. 26 pp., 28 pls. Weigel, Lipsiae.
- Vanzolini, P.E. 1983. Guiana-Brasilian *Polychrus*: distribution and speciation (Sauria: Iguanidae). Pp. 118–131 in Rhodin, G.J. & Miyata, K. (Eds.), *Advances in herpetology and evolutionary biology*. xix, 725 pp. Museum of Comparative Zoology, Cambridge, Massachusetts.
- Wagler, J.G. 1830. *Natürliches System der Amphibien mit vorangehender Classification der Säugthiere und Vögel*. vi, 354 pp. Cotta, Munich.
- Werner, F. 1897. Die Iguaniden-Gattung *Anisolepis* Blng. *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien*, **46**(10): 470–473.
- Wied-Neuwied, M. 1821. *Reise nach Brasilien in den Jahren 1815 bis 1817*, vol. 2. xviii, 345 pp. Brönnner, Frankfurt am Main.
- Wiegmann, A.F.A. 1834. *Herpetologia Mexicana, seu descriptio amphibiorum Novae Hispaniae, quae itineribus Comitum de Sack, Ferdinandi Deppe et Chr. Guil. Schiede in Museum Zoologicum Berolinense Pervenerunt*. Pars prima, saurorum species amplexens, adiecto systematis saurorum prodromo... observationibus. vi, 54 pp., 10 pls. Lüderitz, Berlin.